

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (Currently Amended) A radiation image pick-up device comprising:

a plurality of pixels disposed in a matrix, each of the pixels including at least one photoelectric conversion element for converting incident radiation into electric charges;

a scanning circuit for scanning said pixels; and

a signal output circuit for outputting signals from [[the]] said pixels, [[the]] said radiation image pick-up device being characterized in that~~[[:]]~~ a plurality of signal reading wirings through which [[the]] said pixel and [[the]] said signal output circuit are connected to each other are provided for each pixel, and in that each of [[the]] said pixels includes semiconductor elements connected to each of [[the]] said signal reading wirings, each of said semiconductor elements is selected by controlling an operation of said scanning circuit, and each of [[the]] said signal reading wirings is selectable selected based on an actuation of [[the]] at least one semiconductor element by said scanning circuit.

Claim 2. (Currently Amended) A radiation image pick-up device according to

claim 1, characterized in that [[the]] said photoelectric conversion element includes a wavelength conversion member for performing wavelength conversion on incident radiation.

Claim 3. (Currently Amended) A radiation image pick-up device according to claim 1, characterized in that the signal reading wirings is ~~freely selectable~~ selected based on actuation of the semiconductor elements by the scanning circuit according to a dosage of the radiation.

Claim 4. (Currently Amended) A radiation image pick-up device according to claim 3, characterized in that at least one of ~~[[the]]~~ said semiconductor elements is a source follower.

Claim 5. (Currently Amended) A radiation image pick-up device according to claim 1, characterized in that a signal reading circuit for reading out a signal from ~~[[the]]~~ said pixel is provided to each of ~~[[the]]~~ said signal reading wirings.

Claim 6. (Currently Amended) A radiation image pick-up device according to claim 1, characterized in that a signal reading circuit for reading out a signal from ~~[[the]]~~ said pixel is provided in common to ~~[[the]]~~ said signal reading wirings.

Claim 7. (Currently Amended) A radiation image pick-up device according to claim 1, characterized in that ~~[[the]]~~ two signal reading circuits are provided.

Claim 8. (Currently Amended) A radiation image pick-up method comprising:
using a device which includes~~[[.]]~~ a plurality of pixels disposed in a matrix, each

of the pixels including at least one photoelectric conversion element for converting incident radiation into electric charges[[:]] , a scanning circuit for scanning the pixels, and a signal output circuit for outputting signals from the pixels,

the radiation image pick-up method being characterized in that[[:]] a plurality of signal reading wirings through which the pixel and the signal output circuit are connected to each other are provided for each pixel and in that each of the pixels includes semiconductor elements connected to each of the signal reading wiringssaid device includes respectively semiconductor element connected to each of the signal reading wirings, and the semiconductor device is operated such that any one of a plurality of signal reading wirings which are provided for each pixel and through which the corresponding pixel and the signal output circuit are connected to each other is selected and used in correspondence to a photographing mode to be used an operation control of the semiconductor elements is performed by the scanning circuit, so as to select, the corresponding pixel, one signal reading wiring from the plurality of signal reading wirings connecting the one of the pixels with the signal output circuit, and so as to use the selected one signal reading wiring for the one of the pixels, according a radiographing mode.

Claim 9. (Original) A radiation image pick-up method according to claim 8, characterized in that the photoelectric conversion element performs wavelength conversion on incident radiation, and converts the conversion results into electric charges.

Claim 10. (Currently Amended) A radiation image pick-up method according to claim 8, characterized in that the semiconductor device is operated such that any one of the

plurality of signal reading wirings is selected in correspondence to magnitude of a dosage of radiation each of the signal reading wirings is selected based on the operation control of the semiconductor element by the scanning circuit according to a dosage of the radiation.

Claim 11. (Currently Amended) A radiation image pick-up method according to claim 9, characterized in that each of the pixels includes semiconductor elements connected to the plurality of signal reading wirings, and at least one of the semiconductor elements is a source follower, and when in case of the photographing mode involving a low dosage of radiation, the signal reading wiring having the source follower is selected and the scanning circuit performs the operation control of the semiconductor element such that, when the dosage of the radiation is small in the radiographing, the signal reading wiring connected to the source follower is selected.

Claim 12. (Currently Amended) A radiation image pick-up system, characterized by comprising:

a radiation image pick-up device as claimed in claim 1;

a radiation image pick-up device comprising a plurality of pixels disposed in a matrix, each of said pixels including at least one photoelectric conversion element for converting incident radiation into electric charges; and a signal output circuit for outputting signals from said pixels, said radiation image pick-up device being wherein, a plurality of signal reading wirings through which said pixel and said signal output circuit are connected to each other are provided for each pixel and in that each of the pixels includes semiconductor elements connected to each of said signal reading wirings;

radiation generation means for applying radiation;

selection means for selecting any one of the plurality of signal reading wirings in the radiation image pick-up device in correspondence to magnitude of a dosage of radiation; and selection means for selecting any one of the plurality of radiographing modes of said radiation image pick-up device according to magnitude of a dosage of radiation; and

control means for controlling the application of the radiation by [[the]] said radiation generation means and drive of [[the]] said radiation image pick-up device based on the selection by [[the]] said selection means, wherein said semiconductor elements are selected by an operation control of said control means, and said signal reading wiring is selected based on the operation control of said semiconductor elements by said control means.

Claim 13. (Currently Amended) A radiation image pick-up system according to claim 12, further comprising a photographing switch with which any one of the plurality of signal reading wirings radiographing modes is [[freely]] selectable based on an input by an operator, [[the]] said radiation image pick-up system being characterized in that [[the]] said selection means selects any one of the signal reading wirings radiographing modes based on input made with [[the]] said photographing switch.

Claim 14. (Currently Amended) A radiation image pick-up system according to claim 13, characterized in that [[the]] said photographing switch is adapted to be switched ON into a plurality of strokes corresponding to the number of [[the]] said signal reading wirings, and the respective strokes correspond to an increase in dosage of radiation in ascending order.

Claim 15. (New) A radiation image pick-up device according to claim 1, characterized in that

said plurality of pixels are arranged on a substrate.

Claim 16. (New) A radiation image pick-up device according to claim 15, characterized in that said substrate is glass substrate.

Claim 17. (New) A radiation image pick-up device according to claim 1, characterized in that

at least one of said semiconductor elements is a switch element for transferring a signal based on the electric charge generated by a photoelectric conversion by said photoelectric conversion element.

Claim 18. (New) A radiation image pick-up device according to claim 4, characterized in that

said source follower is a switch element for transferring a signal produced by amplifying the electric charge generated by a photoelectric conversion by said photoelectric conversion element.

Claim 19. (New) A radiation image pick-up device according to claim 4, characterized in that said scanning circuit performs the operation control of said semiconductor element such that, when the dosage of the radiation is small in the radiographing, said signal

reading wiring connected to said source follower is selected.